

REMARKS

Applicants thank the Examiner for the consideration given the present application.

Claims 5-8, 12, 14, 15 and 19-24 are pending in the present application.

Claims 5 and 20 are independent.

Reconsideration of this application is respectfully requested.

Objection to the Specification

The Office Action objects to the term “initializes a sum value,” which was changed from “initializes a sum variable” in the Amendment filed June 23, 2003. The Amendment was made to the paragraph beginning on page 6, line 20 of this Application. Basis for the Amendment is found in Applicants’ original disclosure, for example, in Fig. 4, step S2, which clearly states “initialize a sum value.” The Office Action indicates that the clause “initialize a sum value” does not refer to any kind of value to be added. Applicants respectfully submit that step S1 of Fig. 5 states “power on and/or tray closes” and that step S2 of Fig. 5 states “initialize a sum value.” This language is referred to on page 6, lines 20, ff., which states, “[W]hen the disk tray closes or at power-on of the optical disk drive (S1), the microcomputer initializes a sum variable (S2) and starts a focus search.” To one of ordinary skill in the art at the time the invention was made, this means that a sum value, stored as the result of any previously conducted steps S4 and S5, is

refreshed because the disk drive tray is newly closed. In other words, a sum value result of previously performed steps should be refreshed because subsequently performed steps S4 and S5 are to be conducted, for example, in the present state of a newly-closed disk drive tray. The language “initialize a sum value” is used to characterize such a situation.

In response to this argument, which was presented in the Amendment filed June 28, 2004, the Office Action incorrectly concludes that Applicants stated that “to initializes a sum value means refreshes the sum value.” Applicants did not state this. What Applicants actually stated on page 7, lines 2-6 of the June 28, 2004 Amendment was that the sum value initialized in step S2 is “a sum value result of previously performed steps S4 and S5 should be refreshed because subsequently performed steps S4 and S5 are to be conducted, for example, in the present state of the newly-closed disk drive.”

Applicants respectfully submit that this is a true statement and is clear to one of ordinary skill in the art.

The Office Action then incorrectly concludes that “Accordingly, the term ‘sum value’ does not refer to the sampling of FE signal as describe in Applicant’s step S4.” This conclusion is incorrect because Fig. 4 clearly shows that performance of steps S4 (that starts sampling the FE signal) and S5 (that adds the sampled value of the FE signal if it is above C_{MIN}) are prerequisites to the performance of step S6, which involves determining if the sum value is greater

than a predetermined level. Therefore, a previously determined “sum value” would clearly involve sampling the FE signal.

Accordingly, the meaning of the terms “initializes a sum value” on page 6, lines 8 and 9 of Applicants’ specification is clear to one of ordinary skill in the art. Furthermore, the Office Action does not state what statute, if any, is violated by this language. Applicants respectfully submitted that this language fully complies with all aspects of 35 U.S.C. §112, for example.

Moreover, the Office Action has not demonstrated why the terminology “initialize a sum value” in step S2 needs to be corrected. It is correct and proper as it stands and is part of Applicant’s original disclosure.

Reconsideration and withdrawal of the objection is respectfully requested.

Claim Rejections Under 35 U.S.C. §112, Second paragraph

Claims 5-8, 12, 14, 15 and 19-24 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite.

With respect to claim 5, line 7, “summing the values of the sampled focus error signals” clearly reads on, for example, obtaining the sum of sampled focus error discussed on page 7, lines 16-26, a disclosure that is clear in and of itself.

In rebuttal to this, the Office Action states, “lines 24-26 of page 7 of the specification might be an error. Contrary to the statement in lines 24 and 25, the sum of the sampled focus error is likely to exceed the level (summing all the

sampled noise within a time interval). However, instead of using the term ‘sum,’ the term ‘peak’ of the sampled focus error is not likely to exceed the level (sampled focus error is noise).”

Applicants respectfully submit that these comments in the Office Action are nothing more than speculation and it is established case law that a rejection cannot be based on speculation, In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968), but must be based on objective evidence of record, not merely conclusionary statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Moreover, what sum values might or might not occur is irrelevant to whether or not the claim terminology in issue is clear and definite under 35 U.S.C. §112, second paragraph.

Similar comments are applicable to “summing the values of sampled focus error signal” in claim 20, line 6. The assertion that “[A]pplicant should clarify how the focus error signal is summed” is answered by stating that one of ordinary skill in the art knows how to sum signals using conventional techniques. Applicants respectfully submit that this last question has nothing to do with indefiniteness and should not be included in a rejection based on indefiniteness. Applicants respectfully submit that the terminology in issue is clear in meaning.

Claim 22 has been amended to recite that “sampling of the focus error signal by the analog-to-digital converter is performed if a focus OK signal is asserted.” Applicants respectfully submit that this language is clear and definite.

The Office Action apparently has overlooked this fact and still addresses language no longer in claim 22.

Applicants also respectfully note that claims depending from claims 5, 20 and 22 are also clear and definite for the reasons that claims 5, 20 and 22 are clear and definite.

Accordingly, reconsideration and withdrawal of this rejection of claims 5-8, 12, 14, 15 and 19-24 under 35 U.S.C. §112, second paragraph as being indefinite is respectfully requested.

Rejection of claims under 35 U.S.C. §102(b)

Claims 5, 6, 8, 14, 15 and 20-23 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,903,531 to Satoh et al (hereinafter, “Satoh”). This rejection is respectfully traversed.

A prior art reference anticipates the subject of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently (see, In re Paulsen, 30 F.3d 1475, 1478, 1479, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994), In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990), Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir.

1997) and RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

Applicants respectfully submit that the Office Action does not make out a *prima facie* case that claims 5, 6, 8, 14, 15 and 20-23 are anticipated by Satoh.

Satoh does not disclose “judging the existence of the optical disk in the optical disk drive.” All that Satoh discloses is determining the type of optical disk that is present, i.e., whether the disk is a CD or a DVD, for example. Satoh merely assumes that an optical disk is present and does not provide a step or a system that judges whether or not an optical disk is present in the optical disk drive.

The Office Action has not indicated where this positively recited feature is found in Satoh and Applicants have not been able to find where Satoh judges the existence of an optical disk.

Furthermore, the claims require using a focus error signal to judge whether a disk is present in an optical disk drive. Satoh, on the other hand, only uses a focus error signal to determine what kind of optical disk is in its apparatus. In Fig. 7, for example, step A4 only judges whether the detected optical disk is one layer of a CD or a DVD. Also, in Fig. 7, step Satoh merely judges whether the

optical disk is a DVD-ROM or a DVD-RAM. In both steps, Satoh assumes that it has detected an optical disk.

Satoh discloses, in col. 5, lines 24-50, that its focus error signal is inputted to an S-letter detector through a filter for reducing noise and to a compensation amplifier. The output from the compensation amplifier is input to a driving circuit to become a focus control signal. As stated in col. 5, lines 47-50, "the system controlling portion makes judgments about the kinds of optical disks utilizing the S-letter detection level . . ."

Satoh only discloses using a focus error signal to judge/determine the kinds of optical disks that are present in its apparatus. There is absolutely no "judging the existence of an optical disk in an optical disk drive" in Satoh.

Apparatus claims 20-23 positively recite a combination of features including, for example, a microcomputer for determining the existence of the optical disk in the optical disk drive by summing the values of the sampled focus error signal, which are less than a first predetermined reference level, and determining whether the summed value is greater than a predetermined judging level. Satoh does not disclose this positively recited feature, either, and is not at all concerned with determining the existence of an optical disk.

In response to these arguments, the Office Action simply concludes that Satoh discloses a method which determines the type of optical disk presented in

the disk drive because “Satoh teaches the existence of the optical disk such as a DVD-RAM or a DVD-ROM in the optical disk drive (Figs. 7 and 8).”

Applicants respectfully disagree. Simply showing the existence of an optical disk in an optical disk drive, is not the same as “judging the existence of the optical disk in the disk drive.” The term “judging” involves a determination that an optical disk is present in the disk drive. Satoh does not disclose making such a determination, and the Office Action provides no indication of where Satoh makes such a determination. Just because an optical disk is shown in Satoh’s disk drive does not mean that Satoh discloses determining that an optical disk is there.

More importantly, Satoh does not disclose “judging the existence of the optical disk in the disk drive based on the result in the determining step (d),” where step (d) is “determining whether the summed value is greater than a predetermined judging level.”

The Office Action then admits that the prior art of Satoh does not assume that there is an optical disk in the optical drive (page 2, paragraph 1.(b)). The Office Action concludes from this that because the existence of one type or another type optical disk in the disk drive is not known, Satoh teaches a judging method to determine the existence of those disks.

Applicants respectfully submit that this conclusion does not logically flow from the premise on which it is based. Applicants submit that Satoh simply

assumes that an optical disk is present in its disk drive in order to work and the Office has neither provided evidence that this is not the case, or provided any evidence of a judging step, as recited.

Moreover, as noted above, Satoh only discloses using a focus error signal to judge/determine the kinds of optical disks that are present in its apparatus. In Satoh, there is absolutely no judging the existence of an optical disk in an optical disk drive based on determining whether a particular summed value is greater than a predetermined judging level, as recited.

Accordingly, Satoh simply does not anticipate claims 5, 6, 8, 14, 15 and 20-23, this rejection is improper, and it should be withdrawn.

Allowable Subject Matter

Claims 7, 12, 19 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for the indication of allowable subject matter. However, claims 7 and 12 are not rewritten in independent form at this time because independent claim 5, from which claims 7, 12 and 19 depend, and independent claim 20, from which claim 24 depends, are believed to be allowable for reasons stated above.

Request for Interview

It appears that a personal interview might be able to resolve a number of the outstanding issues in this application. Accordingly, Applicants respectfully request that, after the Examiner has had an opportunity to review this Reply, should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully requested to contact Robert J. Webster (Registration No. 46,472) at the telephone number of the undersigned below, to conduct a personal interview in an effort to expedite prosecution in connection with the present application.

Conclusion

For the foregoing reasons and in view of the above clarifying amendments, Applicants respectfully request the Examiner to reconsider and withdraw all of the objections and rejections of record, and earnestly solicits an early issuance of a Notice of Allowance.

Pursuant to the provisions of 37 CFR 1.17 and 1.136(a), Applicants respectfully petition for a three (3) month extension of time for filing a response in connection with the present application. The required fee of \$1,020.00 is attached hereto, with the Notice of Appeal filed concurrently.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By James T. Eller, Jr., #39,538
James T. Eller, Jr., #39,538

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

JTE/RJW:gf
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